

Clinical Trial Protocol

Iranian Registry of Clinical Trials

09 Jun 2026

Comparative efficacy of desensitizing gel(sensikin) and Nd:Yag laser in comparison with placebo for treatment of dentine hypersensitivity

Protocol summary

Summary

This randomized single blind placebo controlled clinical trial will be conducted to assess the efficacy of laser and gel in comparison with placebo in reducing the pain in patients who suffer from dentine hypersensitivity. The patients who have more than 1 month dentinal hypersensitivity and did not use other hypersensitivity methods will be recruited. We will exclude the pregnant women to avoid the probable side effects of laser; non-vital teeth, cracked teeth, deep restorations and crown and abutments, are other criteria for exclusion. Twenty patients each have at least six teeth (120 tooth) with chronic hypersensitive teeth are being selected. In each patient 6 teeth will be randomly allocated into three intervention; first group will receive Nd:YAG laser (1W, 10Hz, 60s, two times); for second intervention, desensitizing gel (sensikin) administration and in the third group as control group without any active treatment, will be treated with laser device while it was off as placebo. Main study outcome is pain and its assessment is by visual analogue scale (VAS) after stimulation of sensitive tooth by using the sharp tip of explorer or a manual air blower. The measurements will be at: before treatment, immediately after the treatment, 1 week, 1 month, 3 months and 6 months after treatment. The effect of each intervention on pain reduction will be compared with control group.

General information

Acronym

IRCT registration information

IRCT registration number: **IRCT201104104877N5**
Registration date: **2011-04-28, 1390/02/08**
Registration timing: **retrospective**

Last update:

Update count: **0**

Registration date

2011-04-28, 1390/02/08

Registrant information

Name

Jaber Yaghini

Name of organization / entity

Isfahan University of Medical Sciences and Health Services

Country

Iran (Islamic Republic of)

Phone

+98 31 1434 2136

Email address

j_yaghini@dnt.mui.ac.ir

Recruitment status

Recruitment complete

Funding source

Vice chancellor for research, Faculty of Dentistry, Isfahan University of Medical Sciences

Expected recruitment start date

2010-11-22, 1389/09/01

Expected recruitment end date

2011-03-20, 1389/12/29

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

Comparative efficacy of desensitizing gel(sensikin) and Nd:Yag laser in comparison with placebo for treatment of dentine hypersensitivity

Public title

Comparative efficacy of gel and laser for treatment of dentine hypersensitivity

Purpose

Treatment

Inclusion/Exclusion criteria

Inclusion criteria: Having dentine hypersensitivity more than one month Not using other hypersensitivity methods such as toothpastes or tubules sealers

Exclusion criteria: Pregnancy Non-vital teeth, cracked teeth, deep restorations, crown and abutments .

Age

No age limit

Gender

Both

Phase

N/A

Groups that have been masked

No information

Sample size

Target sample size: 120

Randomization (investigator's opinion)

Randomized

Randomization description

Blinding (investigator's opinion)

Single blinded

Blinding description

Placebo

Used

Assignment

Parallel

Other design features

Secondary Ids

empty

Ethics committees

1

Ethics committee

Name of ethics committee

Research Chancellery Of Isfahan Faculty Of Dentistry

Street address

Isfahan Faculty Of Dentistry

City

Isfahan

Postal code

8174673461

Approval date

2010-08-01, 1389/05/10

Ethics committee reference number

389218

Health conditions studied

1

Description of health condition studied

Dentinal Hyper sensitivity

ICD-10 code

k08.9

ICD-10 code description

Disorder of teeth and supporting structures, unspecified

Primary outcomes

1

Description

Pain

Timepoint

Before Treatment ,Immediately after, one week, one month ,3 months and 6 months after intervention.

Method of measurement

Visual Analogous Scale(VAS)

Secondary outcomes

empty

Intervention groups

1

Description

Use of Sensikin gel, three times a day for one week.

Category

Treatment - Drugs

2

Description

Use Of Nd:Yag Laser (1W, 10Hz, 60s, two times)

Category

Treatment - Devices

3

Description

with laser device while it was off as placebo

Category

Placebo

Recruitment centers

1

Recruitment center

Name of recruitment center

Faculty of Dentistry, Isfahan University of Medical Sciences

Full name of responsible person

Fatemeh Shafiei

Street address

Isfahan Faculty Of Dentistry

City

Isfahan

Sponsors / Funding sources

1

Sponsor

Name of organization / entity

Vice chancellor for research, Faculty od Dentistry, Isfahan University of Medical Sciences

Full name of responsible person

Dr. Savabi

Street address

Faculty of Dentistry

City

Isfahan

Grant name**Grant code / Reference number****Is the source of funding the same sponsor organization/entity?**

Yes

Title of funding sourceVice chancellor for research, Faculty of Dentistry,
Isfahan University of Medical Sciences**Proportion provided by this source**

100

Public or private sector*empty***Domestic or foreign origin***empty***Category of foreign source of funding***empty***Country of origin****Type of organization providing the funding***empty***Person responsible for general inquiries****Contact****Name of organization / entity**

Isfahan Faculty Of Dentistry

Full name of responsible person

Dr. Jaber Yaghini

Position

Periodontologist

Other areas of specialty/work**Street address**

Periodontology Department, Faculty Of Dentistry

City

Isfahan

Postal code**Phone**

+98 913 305 0508

Fax**Email**

J_Yaghini@dnt.mui.ac.ir

Web page address**Person responsible for scientific inquiries****Contact****Name of organization / entity**

Isfahan Faculty Of Dentistry

Full name of responsible person

Dr. Ahmad Moghar abed

Position

Periodontologist

Other areas of specialty/work**Street address**

Periodontal Department, Faculty of Dentistry

City

Isfahan

Postal code**Phone**

+98 31 1792 2842

Fax**Email**

Mogharabed@dnt.mui.ac.ir

Web page address**Person responsible for updating data****Contact****Sharing plan****Deidentified Individual Participant Data Set (IPD)***empty***Study Protocol***empty***Statistical Analysis Plan***empty***Informed Consent Form***empty***Clinical Study Report***empty***Analytic Code***empty***Data Dictionary***empty*